# TORQ Analysis of Electronics Engineering Technicians to Electrical and Electronics Installers and Repairers, Transportation Equipment

## INPUT SECTION:

| Transfer | Title | O*NET | Filters | | |
|---|---|---|---|---|---|
| From Title: | Electronics Engineering Technicians | 17-3023.01 | Abilities: | Importance LeveL: 50 | Weight: 1 |
| To Title: | Electrical and Electronics Installers and Repairers, Transportation Equipment | 49-2093.00 | Skills: | Importance LeveL: 69 | Weight: 1 |
| Labor Market Area: | Maine Statewide | | Knowledge: | Importance Level: 69 | Weight: 1 |

## OUTPUT SECTION:

**Grand TORQ: 87**

| Ability TORQ | Skills TORQ | Knowledge TORQ |
|---|---|---|
| Level 84 | Level 88 | Level 89 |

### Gaps To Narrow if Possible

| Ability | Level | Gap | Impt |
|---|---|---|---|
| Multilimb Coordination | 41 | 9 | 53 |
| Speech Recognition | 41 | 4 | 53 |
| Speech Clarity | 39 | 2 | 50 |

### Upgrade These Skills

| Skill | Level | Gap | Impt |
|---|---|---|---|
| Installation | 70 | 5 | 82 |
| Complex Problem Solving | 73 | 4 | 77 |
| Learning Strategies | 65 | 4 | 69 |
| Reading Comprehension | 67 | 3 | 82 |

### Knowledge to Add

| Knowledge | Level | Gap | Impt |
|---|---|---|---|
| No Knowledge Upgrades Required! | | | |

LEVEL and IMPT (IMPORTANCE) refer to the Target Electrical and Electronics Installers and Repairers, Transportation Equipment. GAP refers to level difference between Electronics Engineering Technicians and Electrical and Electronics Installers and Repairers, Transportation Equipment.

## ASK ANALYSIS

### Ability Level Comparison - Abilities with importance scores over 50

| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment | Importance |
|---|---|---|---|
| Arm-Hand Steadiness | 48 | 48 | 68 |
| Problem Sensitivity | 57 | 48 | 65 |
| Near Vision | 57 | 51 | 65 |
| Manual Dexterity | 53 | 46 | 62 |
| Oral Comprehension | 67 | 50 | 59 |
| Finger Dexterity | 57 | 48 | 59 |
| Information Ordering | 60 | 48 | 56 |

 

| | | | |
|---|---|---|---|
| Oral Expression | 62 | 48 | 53 |
| Deductive Reasoning | 62 | 46 | 53 |
| Control Precision | 51 | 44 | 53 |
| Multilimb Coordination | 32 | 41 | 53 |
| Speech Recognition | 37 | 41 | 53 |
| Inductive Reasoning | 55 | 42 | 50 |
| Speech Clarity | 37 | 39 | 50 |

## Skill Level Comparison - Abilities with importance scores over 69

| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment | Importance |
|---|---|---|---|
| Troubleshooting | 76 | 67 | 90 |
| Repairing | 77 | 65 | 90 |
| Active Learning | 69 | 68 | 84 |
| Reading Comprehension | 64 | 67 | 82 |
| Installation | 65 | 70 | 82 |
| Critical Thinking | 63 | 57 | 79 |
| Complex Problem Solving | 69 | 73 | 77 |
| Quality Control Analysis | 61 | 44 | 77 |
| Operation Monitoring | 66 | 56 | 75 |
| Judgment and Decision Making | 63 | 61 | 75 |
| Equipment Selection | 70 | 70 | 73 |
| Service Orientation | 65 | 61 | 70 |
| Learning Strategies | 61 | 65 | 69 |

## Knowledge Level Comparison - Knowledge with importance scores over 69

| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment | Importance |
|---|---|---|---|

## Experience & Education Comparison

### Related Work Experience Comparison

| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment |
|---|---|---|

### Required Education Level Comparison

| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment |
|---|---|---|

 

| | | |
|---|---|---|
| 10+ years | 0% | 0% |
| 8-10 years | 0% | 0% |
| 6-8 years | 3% | 4% |
| 4-6 years | 31% | 0% |
| 2-4 years | 28% | 30% |
| 1-2 years | 16% | 27% |
| 6-12 months | 2% | 17% |
| 3-6 months | 3% | 0% |
| 1-3 months | 0% | 5% |
| 0-1 month | 0% | 0% |
| None | 13% | 13% |

| | | |
|---|---|---|
| Doctoral | 0% | 0% |
| Professional Degree | 0% | 0% |
| Post-Masters Cert | 0% | 0% |
| Master's Degree | 0% | 0% |
| Post-Bachelor Cert | 0% | 0% |
| Bachelors | 3% | 0% |
| AA or Equiv | 73% | 10% |
| Some College | 11% | 13% |
| Post-Secondary Certificate | 2% | 44% |
| High Scool Diploma or GED | 9% | 27% |
| No HSD or GED | 0% | 5% |

| Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment |
|---|---|
| **Most Common Educational/Training Requirement:** | |
| Associate degree | Postsecondary vocational award |
| **Job Zone Comparison** | |
| 3 - Job Zone Three: Medium Preparation Needed | 3 - Job Zone Three: Medium Preparation Needed |
| Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job. | Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job. |
| Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree. | Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree. |
| Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. | Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. |

## Tasks

### Electronics Engineering Technicians

**Core Tasks**

Generalized Work Activities:

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Updating and Using Relevant Knowledge - Keeping up-to-date technically and applying new knowledge to your job.
- Processing Information - Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying

### Electrical and Electronics Installers and Repairers, Transportation Equipment

**Core Tasks**

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Updating and Using Relevant Knowledge - Keeping up-to-date technically and applying new knowledge to your job.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Analyzing Data or Information - Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.

 

information or data.

Specific Tasks

Occupation Specific Tasks:

- Analyze and interpret test information to resolve design-related problems.
- Assemble electrical and electronic systems and prototypes according to engineering data and knowledge of electrical principles, using hand tools and measuring instruments.
- Build, calibrate, maintain, troubleshoot and repair electrical instruments or testing equipment.
- Collaborate with electrical engineers and other personnel to identify, define, and solve developmental problems.
- Conduct inspections for quality control and assurance programs, reporting findings and recommendations.
- Draw or modify diagrams and write engineering specifications to clarify design details and functional criteria of experimental electronics units.
- Evaluate engineering proposals, shop drawings and design comments for sound electrical engineering practice and conformance with established safety and design criteria, and recommend approval or disapproval.
- Install and maintain electrical control systems and solid state equipment.
- Modify electrical prototypes, parts, assemblies, and systems to correct functional deviations.
- Perform supervisory duties such as recommending work assignments, approving leaves and completing performance evaluations.
- Plan method and sequence of operations for developing and testing experimental electronic and electrical equipment.
- Plan, schedule and monitor work of support personnel to assist supervisor.
- Prepare contracts and initiate, review and coordinate modifications to contract specifications and plans throughout the construction process.
- Prepare project cost and work-time estimates.
- Provide technical assistance and resolution when electrical or engineering problems are encountered before, during, and after construction.
- Review existing electrical engineering criteria to identify necessary revisions, deletions or amendments to outdated material.
- Set up and operate test equipment to evaluate performance of developmental parts, assemblies, or systems under simulated operating conditions, and record results.

Specific Tasks

Occupation Specific Tasks:

- Adjust, repair, or replace defective wiring and relays in ignition, lighting, air-conditioning, and safety control systems, using electrician's tools.
- Confer with customers to determine the nature of malfunctions.
- Cut openings and drill holes for fixtures, outlet boxes, and fuse holders, using electric drills and routers.
- Estimate costs of repairs based on parts and labor requirements.
- Inspect and test electrical systems and equipment to locate and diagnose malfunctions, using visual inspections, testing devices, and computer software.
- Install electrical equipment such as air-conditioning, heating, or ignition systems and components such as generator brushes and commutators, using hand tools.
- Install fixtures, outlets, terminal boards, switches, and wall boxes, using hand tools.
- Install new fuses, electrical cables, or power sources as required.
- Locate and remove or repair circuit defects such as blown fuses or malfunctioning transistors.
- Maintain equipment service records.
- Measure, cut, and install frameworks and conduit to support and connect wiring, control panels, and junction boxes, using hand tools.
- Reassemble and test equipment after repairs.
- Refer to schematics and manufacturers' specifications that show connections and provide instructions on how to locate problems.
- Repair or rebuild equipment such as starters, generators, distributors, or door controls, using electrician's tools.
- Splice wires with knives or cutting pliers, and solder connections to fixtures, outlets, and equipment.

Detailed Tasks

Detailed Work Activities:

- analyze operation of malfunctioning electrical or electronic equipment
- bend tubing or conduit
- calibrate or adjust electronic equipment or instruments to specification
- communicate technical information
- conduct sequential tests to locate electronic malfunction
- determine installation, service, or repair needed

- Visit construction sites to observe conditions impacting design and to identify solutions to technical design problems involving electrical systems equipment that arise during construction.
- Write commissioning procedures for electrical installations.

## Detailed Tasks

Detailed Work Activities:

- analyze engineering test data
- analyze technical data, designs, or preliminary specifications
- analyze test data
- calculate engineering specifications
- calibrate or adjust electronic equipment or instruments to specification
- communicate technical information
- confer with engineering, technical or manufacturing personnel
- develop plans for programs or projects
- draw prototypes, plans, or maps to scale
- estimate cost for engineering projects
- evaluate engineering data
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- inspect facilities or equipment for regulatory compliance
- install electronic equipment, components, or systems
- install, maintain, or repair electronics manufacturing equipment
- install/connect electrical equipment to power circuit
- manage contracts
- modify electrical or electronic equipment or products
- operate precision test equipment
- prepare technical reports or related documentation
- read blueprints
- read manufacturing outlines for electronic products
- read schematics
- read technical drawings
- repair computer controlled manufacturing systems
- repair electronic components, equipment, or systems
- resolve engineering or science problems
- solder electrical or electronic connections or components
- test equipment as part of engineering projects or processes
- distinguish colors
- estimate cost for repair services
- fabricate, assemble, or disassemble manufactured products by hand
- install electrical conduit or tubing
- install electrical fixtures or components
- install electronic equipment, components, or systems
- install electronic power, communication, control, or security equipment or systems
- install lead-in wires to control boxes and other components
- install or replace meters, regulators, or related measuring or control devices
- install/connect electrical equipment to power circuit
- install/string electrical or electronic cable or wiring
- measure, weigh, or count products or materials
- obtain information from clients, customers, or patients
- perform safety inspections in industrial, manufacturing or repair setting
- read blueprints
- read schematics
- read tape measure
- read technical drawings
- repair electronic components, equipment, or systems
- repair or adjust measuring or control devices
- repair or replace electrical wiring, circuits, fixtures, or equipment
- replace electronic components
- solder electrical or electronic connections or components
- test electrical/electronic wiring, equipment, systems or fixtures
- test electronic or electrical circuit connections
- understand detailed electronic design specifications
- understand service or repair manuals
- understand technical information for electronic repair work
- understand technical operating, service or repair manuals
- use basic carpentry techniques
- use diagnostic software in electronics repair
- use electrical or electronic test devices or equipment
- use hand or power tools
- use interpersonal communication techniques
- use oscilloscopes in electronics repair
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- troubleshoot electronics manufacturing equipment
- understand detailed electronic design specifications
- understand engineering data or reports
- understand service or repair manuals
- understand technical information for electronic repair work
- understand technical operating, service or repair manuals
- use drafting or mechanical drawing techniques
- use electrical or electronic test devices or equipment
- use knowledge of metric system
- use precision measuring tools or equipment
- use robotics systems technology
- use scientific research methodology
- use technical information in manufacturing or industrial activities
- use technical regulations for engineering problems

Technology - Examples

Analytical or scientific software

- Mentor Graphics ModelSim
- Root cause analysis software
- The Mathworks MATLAB

Computer aided design CAD software

- Cadence software
- Computer aided design CAD software
- MicroSim Pspice
- Prentice Hall Electronic Workbench MultiSim

Data base user interface and query software

- Database software
- Microsoft Access

Development environment software

- C
- Microsoft Visual Basic
- National Instruments LabVIEW
- Verilog

Document management software

- Adobe Systems Adobe Acrobat software

Graphics or photo imaging software

- use soldering equipment
- use voltmeter, ammeter, or ohmmeter

Technology - Examples

- Graphics software

Industrial control software

- Human machine interface HMI software

Internet browser software

- Microsoft Internet Explorer

Object or component oriented development software

- Computer aided software engineering CASE tools

Operating system software

- Emulators

Spreadsheet software

- Microsoft Excel
- Spreadsheet software

Word processing software

- Microsoft Word

Tools - Examples

- Pliers
- Wrenches
- Dual power supplies
- Ammeters
- Wrist anti-static straps
- Microscopes
- Desktop computers
- Digital cameras
- Direct current DC motors
- Dynamometers
- Frequency counters
- Nanosecond universal counters
- Current probes
- Welding goggles
- Anti-static heel grounders
- Impedance meters
- Transformers
- Logic analyzers
- Spectrum analyzers

- Laser printers
- Bench lathes
- Magnetic pickup tools
- Programmable logic controllers PLC
- Microprocessors
- Computerized numerical control CNC machines
- Multimeters
- Notebook computers
- Ohmmeters
- Oscilloscopes
- Personal computers
- Phase shifters
- Phase shift indicators
- Digital plotters
- Dataloggers
- Potentiometers
- Drills
- Power meters
- Power screwdrivers
- Q meters
- Screwdrivers
- Function generators
- Soldering equipment
- Soldering stations
- Stroboscopes
- Wire wrap guns
- Cameras
- Wire strippers
- Tachometers
- Digital voltmeters DVM
- Wattmeters
- Welding hoods

- Wire cutters
- Crimping pliers

## Labor Market Comparison

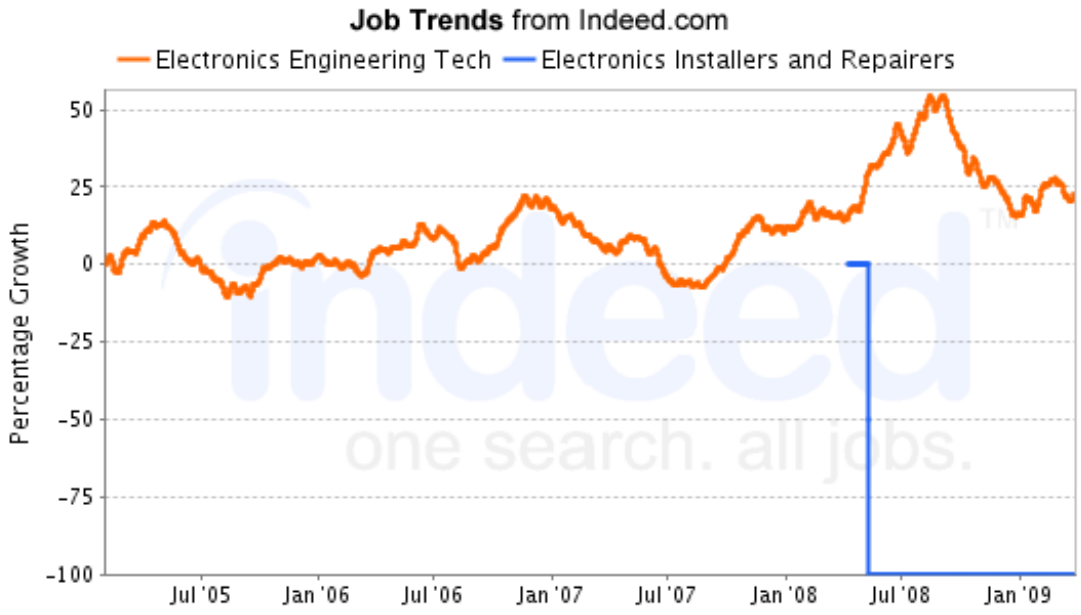
| Description | Electronics Engineering Technicians | Electrical and Electronics Installers and Repairers, Transportation Equipment | Difference |
|---|---|---|---|
| Median Wage | $ 45,180 | $ 35,960 | $( 9,220) |
| 10th Percentile Wage | $ 25,770 | $ 26,990 | $ 1,220 |
| 25th Percentile Wage | N/A | N/A | N/A |
| 75th Percentile Wage | $ 61,600 | $ 44,780 | $( 16,820) |
| 90th Percentile Wage | $ 79,100 | $ 55,410 | $( 23,690) |
| Mean Wage | $ 48,740 | $ 38,200 | $( 10,540) |
| Total Employment - 2007 | 430 | 130 | -300 |
| Employment Base - 2006 | 449 | 154 | -295 |
| Projected Employment - 2016 | 361 | 160 | -201 |
| Projected Job Growth - 2006-2016 | -19.6 % | 3.9 % | 23.5 % |
| Projected Annual Openings - 2006-2016 | 9 | 4 | -5 |

## National Job Posting Trends

Trend for Electronics Engineering Technicians

Trend for Electrical and Electronics Installers and Repairers, Transportation Equipment




Data from Indeed

## Recommended Programs

### Electrician

Electrician. A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

| Institution | Address | City | URL |
|---|---|---|---|
| Eastern Maine Community College | 354 Hogan Rd | Bangor | www.emcc.edu |
| Wasington County Community College | One College Drive | Calais | www.wccc.me.edu |
| Kennebec Valley Community College | 92 Western Ave | Fairfield | www.kvcc.me.edu |
| Kennebec Valley Community College | 92 Western Ave | Fairfield | www.kvcc.me.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Southern Maine Community College | 2 Fort Road | South Portland | www.smccME.edu |

### Auto/Automotive Mechanic/Technician

Automobile/Automotive Mechanics Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

| Institution | Address | City | URL |
|---|---|---|---|
| Central Maine Community College | 1250 Turner St | Auburn | www.cmcc.edu |
| Eastern Maine Community College | 354 Hogan Rd | Bangor | www.emcc.edu |

| | | | |
|---|---|---|---|
| Eastern Maine Community College | 354 Hogan Rd | Bangor | www.emcc.edu |
| Eastern Maine Community College | 354 Hogan Rd | Bangor | www.emcc.edu |
| Wasington County Community College | One College Drive | Calais | www.wccc.me.edu |
| Wasington County Community College | One College Drive | Calais | www.wccc.me.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Northern Maine Community College | 33 Edgemont Dr | Presque Isle | www.nmcc.edu |
| Southern Maine Community College | 2 Fort Road | South Portland | www.smccME.edu |

Aircraft Mechanic/Technician, Airframe

Airframe Mechanics and Aircraft Maintenance Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all aircraft components other than engines, propellers, avionics, and instruments. Includes instruction in layout and fabrication of sheet metal, fabric, wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.

No schools available for the program

## Maine Statewide Promotion Opportunities for Electronics Engineering Technicians

| O*NET Code | Title | Grand TORQ | Job Zone | Employment | Median Wage | Difference | Growth | Annual Job Openings |
|---|---|---|---|---|---|---|---|---|
| 17-3023.01 | Electronics Engineering Technicians | 100 | 3 | 430 | $45,180.00 | $0.00 | -20% | 9 |
| 17-3023.03 | Electrical Engineering Technicians | 91 | 3 | 430 | $45,180.00 | $0.00 | -20% | 9 |
| 49-2094.00 | Electrical and Electronics Repairers, Commercial and Industrial Equipment | 86 | 3 | 440 | $49,450.00 | $4,270.00 | -19% | 15 |
| 49-9062.00 | Medical Equipment Repairers | 84 | 3 | 80 | $46,700.00 | $1,520.00 | 30% | 6 |
| 49-2095.00 | Electrical and Electronics Repairers, Powerhouse, Substation, and Relay | 82 | 5 | 20 | $60,790.00 | $15,610.00 | 5% | 1 |
| 51-4111.00 | Tool and Die Makers | 82 | 3 | 160 | $51,670.00 | $6,490.00 | -11% | 2 |
| 15-1071.00 | Network and Computer Systems Administrators | 82 | 4 | 1,070 | $57,690.00 | $12,510.00 | 18% | 44 |
| 49-9012.00 | Control and Valve Installers and Repairers, Except Mechanical Door | 81 | 3 | 170 | $47,860.00 | $2,680.00 | -9% | 3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 15-1081.00 | Network Systems and Data Communications Analysts | 80 | 3 | 610 | $59,790.00 | $14,610.00 | 47% | 54 |
| 47-4021.00 | Elevator Installers and Repairers | 80 | 4 | 0 | $50,960.00 | $5,780.00 | 0% | 0 |
| 51-8012.00 | Power Distributors and Dispatchers | 79 | 4 | 0 | $47,720.00 | $2,540.00 | 0% | 0 |
| 17-2072.00 | Electronics Engineers, Except Computer | 78 | 4 | 210 | $76,420.00 | $31,240.00 | -26% | 4 |
| 15-1021.00 | Computer Programmers | 78 | 4 | 720 | $58,240.00 | $13,060.00 | -12% | 16 |
| 15-1051.00 | Computer Systems Analysts | 78 | 4 | 1,650 | $69,340.00 | $24,160.00 | 20% | 78 |
| 27-1021.00 | Commercial and Industrial Designers | 77 | 4 | 140 | $49,170.00 | $3,990.00 | 5% | 5 |

## Top Industries for Electrical and Electronics Installers and Repairers, Transportation Equipment

| Industry | NAICS | % in Industry | Employment | Projected Employment | % Change |
|---|---|---|---|---|---|
| Rail transportation | 482100 | 27.78% | 5,855 | 5,193 | -11.30% |
| Electronics and appliance stores | 443100 | 8.77% | 1,849 | 1,991 | 7.69% |
| Aerospace product and parts manufacturing | 336400 | 5.47% | 1,152 | 1,210 | 4.96% |
| Electrical and electronic goods merchant wholesalers | 423600 | 3.42% | 720 | 875 | 21.51% |
| Motor vehicle parts manufacturing | 336300 | 2.89% | 610 | 500 | -17.95% |
| Electrical contractors | 238210 | 2.71% | 572 | 618 | 8.06% |
| Federal government, excluding postal service | 919999 | 2.65% | 560 | 545 | -2.58% |
| Electronic and precision equipment repair and maintenance | 811200 | 2.08% | 439 | 411 | -6.33% |
| Automotive parts, accessories, and tire stores | 441300 | 2.00% | 421 | 424 | 0.55% |
| Support activities for air transportation | 488100 | 1.86% | 393 | 489 | 24.49% |
| Motor vehicle body and trailer manufacturing | 336200 | 1.26% | 266 | 268 | 0.84% |
| Engine, turbine, and power transmission equipment manufacturing | 333600 | 1.20% | 252 | 218 | -13.50% |
| Motor vehicle and motor vehicle parts and supplies merchant wholesalers | 423100 | 1.17% | 247 | 290 | 17.63% |
| Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance | 811300 | 0.84% | 176 | 192 | 9.06% |
| Security systems services | 561620 | 0.75% | 159 | 219 | 38.40% |

## Top Industries for Electronics Engineering Technicians

| Industry | NAICS | % in Industry | Employment | Projected Employment | % Change |
|---|---|---|---|---|---|
| Semiconductor and other electronic component manufacturing | 334400 | 11.11% | 18,927 | 16,543 | -12.59% |
| Navigational, measuring, electromedical, and control instruments manufacturing | 334500 | 7.00% | 11,938 | 11,429 | -4.26% |
| Employment services | 561300 | 6.59% | 11,227 | 14,209 | 26.56% |
| Wired telecommunications carriers | 517100 | 5.49% | 9,362 | 7,350 | -21.49% |
| Federal government, excluding postal service | 919999 | 5.23% | 8,920 | 8,432 | -5.47% |
| Postal service | 491100 | 4.31% | 7,344 | 7,476 | 1.80% |
| Electric power generation, transmission and distribution | 221100 | 4.15% | 7,078 | 6,510 | -8.03% |
| Communications equipment manufacturing | 334200 | 3.23% | 5,503 | 5,547 | 0.79% |
| Research and development in the physical, engineering, and life sciences | 541710 | 3.07% | 5,233 | 5,583 | 6.69% |
| Electrical and electronic goods merchant wholesalers | 423600 | 2.83% | 4,829 | 5,693 | 17.90% |
| Computer and peripheral equipment manufacturing | 334100 | 2.62% | 4,464 | 2,922 | -34.54% |
| Local government, excluding education and hospitals | 939300 | 2.21% | 3,764 | 4,228 | 12.34% |
| Computer systems design and related services | 541500 | 1.90% | 3,241 | 4,376 | 35.02% |
| Professional and commercial equipment and supplies merchant wholesalers | 423400 | 1.69% | 2,888 | 3,367 | 16.57% |
| Aerospace product and parts manufacturing | 336400 | 1.59% | 2,708 | 2,758 | 1.84% |